

**Meeting Minutes
Travis Air Force Base
Environmental Management
Building 246, Downstairs Conference Room
Installation Restoration Program
Remedial Program Managers Meeting**

11 April 2001, 0930 hours

Mr. Allen Brickeen, Travis Air Force Base (AFB), conducted the Remedial Program Managers (RPM) meeting held on 11 April 2001 at 0930 in Building 246, Downstairs Conference Room, Travis AFB, California. Attendees included:

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| • Allen Brickeen | Travis AFB |
| • Mark Sandy | Travis AFB |
| • Glenn Anderson | Travis AFB |
| • Dale Malsberger | Travis AFB |
| • Wilford Day | Travis AFB |
| • Anne D'Lima | Travis Restoration Advisory Board (RAB) Member |
| • Roger Johnson | Air Force Center for Environmental Excellence (AFCEE) |
| • Sarah Byrum | AFCEE |
| • Parker Atkins | Informatics |
| • John Lucey | U.S. Environmental Protection Agency (U.S. EPA) |
| • Elizabeth Allen | Tech Law |
| • Sarah Raker | San Francisco Regional Water Quality Control Board (RWQCB) |
| • Daryl Greenway | CH2M HILL |
| • Leslie Royer | CH2M HILL |
| • Deena Stanley | URS |
| • Mike Wray | GTI/IT |

Handouts distributed throughout the meeting included:

- Attachment 1 Meeting Agenda
- Attachment 2 Master Meeting, Teleconference, and Document Schedule
- Attachment 3 Maps of Monitoring Wells that will be sampled during the May 2001 Sampling Event
- Attachment 4 Slides of the 2001 Groundwater Sampling and Analysis Program — May Sampling Event, 11 April 2001
- Attachment 5 Summary of Section 6 — Optimization of Groundwater Monitoring
- Attachment 6 SBBGWTP Monthly Data Sheet, March 2001
- Attachment 7 Response to U.S. EPA Comments on the ST032 Technical Memorandum — 22 January 2001
- Attachment 8 CGWTP Monthly Data Sheet, February 2001
- Attachment 9 NGWTP Monthly Data Sheet, February 2001
- Attachment 10 CH2M HILL Field Activities, March 2001 – April 2001
- Attachment 11 GTI Field Activities (March/April 2001)
- Attachment 12 Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)

1. ADMINISTRATIVE

A. Previous Meeting Minutes

The 14 March 2001 meeting minutes were accepted as final with corrections (page 3, 1st paragraph, should read “could last several years”).

B. Four-Month Calendar of Upcoming Milestones and Meeting Dates

The revised Travis AFB Master Meeting, Teleconference, and Document Schedule was distributed (see Attachment 2).

Master Meeting and Document Schedule

— Page 2, the LF008 Groundwater Extraction System and DP039 Groundwater Dual-Phase Extraction System Operation and Maintenance (O&M) Manuals schedule were revised to “to be determined” (TBD), pending comments from Mr. Lucey.

Mr. Lucey stated that he will have his comments completed in two weeks. His comments will also address the South Base Boundary Groundwater Treatment Plant (SBBGWTP) O&M Manual.

Mr. Brickeen stated that in the meantime, the systems will start up.

- Page 3, Natural Attenuation Assessment Work Plan (NAAW) for FT004/SD031 comments were received from U.S. EPA. Mr. Lucey submitted copies of the U.S. EPA's policy guidance to the Air Force. Ms. Raker stated that she would defer to U.S. EPA.
- Page 4, the Basewide Soil Remedial Design/Remedial Action (RD/RA) LF007/Corrective Action Management Unit (CAMU) title was changed to Basewide Soil RD/RA Plan. The schedule has been revised to TBD.
- Page 4, the SD042 Soil RD schedule has been revised to TBD.
- Page 5, the ECC point of contact (POC) for the Cypress Lake Removal Action was changed to Kevin Spala.
- Page 5, the Travis AFB POC for the DP039 Treatability Study Report was changed to Glenn Anderson.
- Page 6, Community Relations Plan, agency comments were due 16 March 2001. Mr. Lucey stated that he will check with Mr. David Cooper for comments. Mr. Brickeen said Mr. Salcedo would check with Pat Ryan for comments.
- Page 7, the Long-Term Operation (LTO) Strategic Plan and the RD/RA Strategic Plan schedules were changed to TBD. A working copy of the LTO Strategic Plan will be distributed at the RAB meeting. The RD/RA strategic plan will follow.

2. OPERABLE UNIT UPDATE

A. North/East/West/ Industrial Operable Unit

1. Landfill Cap Design

Mr. Dale Malsberger stated that Travis AFB is reviewing the design modifications to ensure that there will be a minimum of a 5-foot separation between the groundwater table and the excavated contaminated soil that is consolidated into the CAMU.

Travis AFB has looked at four different ways to ensure the 5-foot separation:

- Drainage layer that would be under the entire CAMU;
- A liner under the CAMU;
- An interceptor trench located at the upgradient edge of the CAMU;

- Use of additional soil to raise the subgrade of the CAMU.

Travis AFB has focused on use of an interceptor trench alone or with a higher subgrade to ensure the 5-foot separation.

Mr. Malsberger stated that one design issue with the interceptor is to determine how much water will have to be intercepted and drained away. Travis AFB is currently determining where the water table will be. Ms. Raker has recommended that the Air Force use the average high water table. Travis AFB reviewed the historical records from the last nine years for the representative high water table. Mr. Malsberger and Ms. Raker will meet to go through the details and determine if she concurs with the Travis AFB approach.

Travis AFB is also looking at the issue of increased pore pressure due to the added weight of the soil from the CAMU and how it affects the water table.

Mr. Malsberger reported that the Air Force has received Ms. Raker's official comments on the LF007 Soil Design document. Once the 5-foot separation issue is resolved, the Air Force will submit a preliminary response to comments on all agency comments.

Mr. Malsberger stated that the contract will soon be in place for GTI to do the work at the landfill. One of the first efforts that will take place is removal of debris (such as metal, concrete, and asphalt). The wood that has become part of the habitat for snakes and lizards will be left in place. GTI will also correct the settlement in the westernmost area of the 3A Area by adding soil.

Ms. Raker stated that she would like to look at these areas after today's meeting.

Ms. Raker stated that she has determined that CH2M HILL did the work at Hamilton AFB's Landfill 26, which is very similar to Travis AFB's landfill. She suggested that Mr. Malsberger may be able to get the documentation from CH2M HILL and review the similarities of debris, saturation, and the monitoring of methane gas. (The project manager was Janet Goodrich.)

Mr. Malsberger stated that if Travis AFB uses an ET cap, it would not trap the methane gas. However, if methane is generated, the current design provides for six gas monitoring devices around the CAMU.

Ms. Raker stated that Travis AFB should attempt to place monitoring wells at a depth so that they do not become saturated, for the purpose of detecting methane gas before any potential for entrapment.

Although this should not occur with an ET cap, it is better to be conservative.

Mr. Malsberger asked if Hamilton AFB's landfill cap has a high point vent. Ms. Raker stated that she did not know.

Mr. Lucey asked what is the soil vapor permeability in relation to this cap. He asked if the methane will diffuse into the atmosphere. If this is an unknown, perhaps a high point vent should be designed into the system. Mr. Malsberger stated that the ET cap will have only an 85% compaction, and he is confident that the methane gas would migrate up and out through the soil.

Mr. Lucey stated that the methane gas issue should be addressed in the design report.

2. CAMU Acceptance Level Technical Memorandum

Mr. Malsberger stated that Ms. Raker was satisfied with the preliminary response to comments. Mr. Malsberger stated that Mr. Lucey questioned whether there should be a volatile organic compound (VOC) acceptance level. An e-mail was sent with the language that could include the VOC acceptance level.

Mr. Malsberger asked if that type of language is necessary as a contingency or could it be something more general, such as, if Travis AFB finds VOCs, the contaminants would be addressed at that time.

Ms. Raker stated that a photoionization detector (PID) reading would be good. It is her recommendation that the language should be generic, and she would be comfortable looking at the site-specific data to determine what should be done on a case-by-case basis.

Mr. Lucey stated that the issue was that soil screening levels are higher than preliminary remediation goals (PRGs). He went on to say that there are two ways to address this: (1) keep the language general and figure out the details later or (2) use the PRGs. He is trying to avoid not knowing what to do if VOCs are found during excavation.

Ms. Raker asked if the clean soil being held has VOC concentrations higher than the screening levels. Mr. Malsberger stated that the soil management policy that was developed with the RWQCB allows concentrations in the "clean soil" for the CAMU that are higher than the PRG soil screening level, which is very conservative. If VOC concentrations are below the screening level, it should be acceptable. If the VOC concentrations are above the screening level, then action should be addressed on a case-by-case basis.

Mr. Malsberger suggested that if VOCs are discovered at concentrations below the dilution attenuation factor 20 times concentration (DAF20) screening level, then the soil can be transported to the CAMU. If the VOC levels are above the DAF20 screening level, then the soil could go off base, be evaluated for treatment, or be evaluated on a site-specific consideration.

Mr. Lucey stated that he is comfortable with the DAF20. Mr. Malsberger is to check with Mr. Salcedo.

Mr. Lucey stated that he is trying to set up a procedure to deal with the possibility that something unknown is discovered. A DI-WET analysis should also be conducted for TCE and benzene to determine levels protective of groundwater.

Mr. Brickeen asked if the DAF20 could be used after the chemical has been identified, segregated, and sampled. Then those results could be compared with the DAF20 level to determine what will be done with the soil. Mr. Lucey stated that for all the metals, PCBs, and pesticides going in the CAMU, the DI WET test is to be done to show that the acceptance levels are protective of the groundwater. Then the Air Force should run a test for TCE and benzene to determine what levels are protective. The original intent of his comment was to add the DI WET test to include volatiles.

Mr. Brickeen stated that his concern would be funding this action if it is not necessary.

Mr. Lucey stated language should be added stating that if anything unknown is found, the soil should be segregated and analyzed. If concentrations are below the DAF20 screening level, the soil can be consolidated into the CAMU. If above the DAF20, the soil should be treated or sent to an off-site disposal facility. Each agency and the Air Force should look at the DAF20 number and come to a consensus that it is protective of groundwater.

Mr. Malsberger asked Mr. Lucey and Ms. Raker to look at the DAF20 screening level and determine if they are comfortable with that criteria. Mr. Lucey stated that the Air Force should place the language in the CAMU Acceptance Level Technical Memorandum and the ROD.

Mr. Malsberger stated the language should also allow for evaluation on a case by case basis as indicated by the RWQCB. He will write up proposed language based on the above discussion and discuss it with Mr. Salcedo at tomorrow's RAB meeting and e-mail it to the other RPM's.

Mr. Malsberger and Mr. Lucey will discuss the response to comments on the technical memorandum on Monday, 16 April 2001.

B. West/Annexes/Basewide Operable Unit

1. Vernal Pool Mitigation Report

Mr. Anderson stated that the agencies received a copy of the Vernal Pool Mitigation Report submitted approximately six weeks ago. This report supports the Air Force position that landfill restrictions are appropriate for Landfill X.

Mr. Anderson asked Mr. Lucey if the proposal to excavate the material in Landfill X would be the more cost-effective and protective action than what is in place in the WABOU Soil ROD now. Mr. Lucey said no; if U.S. Fish and Wildlife Services is comfortable with the construction of a berm, then the proposed remedial alternative is appropriate.

Mr. Lucey asked to see the letter from U.S. Fish and Wildlife Services. The Air Force is to provide the correspondence between the Air Force and U.S. Fish and Wildlife to U.S. EPA.

2. Ecological Technical Memorandum

Mr. Anderson stated that Travis AFB should have the Ecological Technical Memorandum ready for internal review by 13 April 2001. A schedule for agency review will be established and submitted at a later date.

Mr. Lucey submitted the U.S. EPA's comments on the FT004/SD031 NAAW to the Air Force.

3. CURRENT PROJECTS

A. Groundwater Sampling and Analysis Program

Maps were distributed that show all the monitoring wells that will be sampled in the May 2001 event (see Attachment 3).

Ms. Leslie Royer gave a presentation on the 2001 Groundwater Sampling and Analysis Program (GSAP), May Sampling Event (see Attachment 4). Travis AFB will conduct one large annual sampling event along with smaller semi-annual and quarterly events. The month of May was chosen for the large annual event because of the good weather along with the fact that the water table is high, giving the maximum groundwater elevation to capture the maximum concentration in the vadose zone.

The annual report will be submitted in September, covering all of the 2000 data and part of the 2001 data.

The types of wells to be sampled are upgradient wells, wells within the plumes, cross-gradient wells, downgradient wells, and newly installed wells.

The GSAP will focus on actions rather than sites. It will be based on remedial objectives at the site, focusing only on data that the stakeholders need to make decisions. The GSAP will focus on chemical of concern (COC) data; however, nickel has been eliminated as a COC at some sites.

TPH-gas and TPH-diesel will only be analyzed during the annual event except at POCO sites. The GSAP will use a “short” list of 20 VOCs, rather than the entire SW8260 suite. The number of field duplicates and MS/MSDs will be reduced. The QA/QC will be focused on newly installed wells or sites where there are little historical data.

The highlights for this May 2001 event are as follows:

- A basewide groundwater elevation survey will be performed.
- Groundwater samples will be collected from 234 wells at 12 “actions” and 5 additional individual sites.
- Surface water samples will be collected from six sample stations in the west branch and main branch of Union Creek.

Ms. Royer distributed a summary of Section 6 (see Attachment 5), which includes a table of the wells that are scheduled for the May 2001 GSAP event. The sampling event is to begin the week of 7 May 2001.

Ms. Raker asked what is the history for surface water sampling. Ms. Royer stated that samples have been taken at the four outfalls along Union Creek and in the West Industrial Operable Unit (WIOU). This has been done on a semi-annual basis for a number of years.

Mr. Brickeen stated that there is no CERCLA contamination at the duck pond; therefore, the duck pond is not included. The only question at the duck pond is what is coming onto the base. Mr. Lucey stated that it might be good to have current data on the duck pond.

Ms. Ann D’Lima commented that her dog comes out of the duck pond with sticky, smelling slime. She asked if the water could be tested. Mr. Brickeen explained that the substance is decayed algae. He also stated that the duck pond was tested several years ago, and some amount of pesticide residue was found in the sediment, which is common all around the base.

Mr. Lucey voiced U.S. EPA's concern with pesticides and questioned if the source is on or off the base.

Mr. Lucey stated that the summary looks good. Ms. Raker asked how long the sampling will take. Ms. Royer stated that it will take approximately one month.

B. South Base Boundary Treatment Plant

Mr. Mark Sandy reported that the South Base Boundary Groundwater Treatment Plant (SBBGTP) performed at 91.6% uptime with approximately 3.7 million gallons of groundwater extracted and treated during the month of March 2001. The average flow was 89.9 gallons per minute (gpm). Approximately 2.82 pounds of VOCs were removed during March 2001. The total mass of VOCs removed since startup of the system is 134.6 pounds. (See Attachment 6.)

Mr. Sandy reported that Travis AFB has had to reduce flows at the FT005 since the RWQCB rescinded its approval to use a sequestering agent and the use of the air stripper was discontinued. Because 1,2-DCA does not adsorb well to the carbon, the breakthrough time is substantially reduced. In order to minimize the risk of breakthrough and discharge to the creek exceeding discharge limits, extraction rates were decreased at the FT005 wells containing 1,2-DCA. Mr. Brickeen commented that this will allow contaminants to cross the base boundary.

The easement agreement has been forwarded to the Peterson's attorneys and the Air Force anticipates resolution by June.

1. Sequestering Agent

Ms. Raker stated that she has met with her management regarding the sequestering agent; however, it has not resulted in a final decision. Ms. Raker stated that it is a priority for her management.

2. ST032 Interim Groundwater Remedies

Mr. Sandy distributed the Air Force's response to the use U.S. EPA's comment on the evaluation of the ST032 Interim Groundwater Remedies (see Attachment 7). Mr. Sandy asked Mr. Lucey to review the response.

C. Central Groundwater Treatment Plant

Mr. Sandy reported that the Central Groundwater Treatment Plant (CGWTP) performed at 100% uptime with approximately 4.1 million gallons of water extracted and treated. The average flow for the CGWTP was 92.2 gpm for the month. Approximately 42 pounds of VOCs were treated during March 2001.

The total mass of VOCs removed since startup of the system is 1,047 pounds (see Attachment 8).

The thermal unit at the Oil Spill Area (OSA) site has been installed and is operating. Once the additional extraction wells at SS016 have been installed and reach steady state, the dioxin startup test will take place. This should be in early June.

D. North Groundwater Treatment Plant

Mr. Sandy reported that the North Groundwater Treatment Plant (NGWTP) performed at 93.1% uptime. From 1 March to 31 March 2001, approximately 6.9 pounds of VOCs were removed. Approximately 1.1 million gallons of water were extracted and treated. The average flow for the NGWTP was 27.9 gpm for the month of March. The total mass of VOCs removed since startup of the system is 65.8 pounds (see Attachment 9).

Mr. Sandy reported that soil vapor extraction has been in operation since 21 March 2001.

4. PROGRAM ISSUES UPDATE

A. Clean Water Act Supreme Court Ruling

Mr. Brickeen stated that he spoke with Mr. Salcedo who informed him that the DTSC attorneys were coordinating their response with U.S. EPA. Ms. Raker stated that the internal memorandum prepared by her chief counsel was sent to their executive officer. She is currently drafting a cover letter that will explain the origin of the discussion. This will be included in the package to the executive officer, who will then submit it to Mr. Brickeen.

Mr. Lucey stated that he is not sure what U.S. EPA's response will be. After the U.S. EPA attorney reviewed the Air Force memorandum, the main question was what the basis of the jurisdictional designation of the vernal pools; is it the migratory birds.

Mr. Lucey stated that he spoke with U.S. Army Corps of Engineers (USACE) who clarified many issues. It is Mr. Lucey's understanding that there are two jurisdictional designations of wetlands (1) based upon the migratory birds and (2) the connectivity to a body of water.

The Supreme Court ruling removed the migratory bird aspect of the wetlands jurisdiction. If the wetland is isolated, there would be no federal jurisdiction. The catch is that within the federal scheme, the USACE is the only agency that can determine if the wetland is connected. Mr. Lucey suggested that Travis AFB contact the USACE to determine if this area is isolated or not.

Mr. Malsberger asked if the USACE was aware that Travis AFB already has a jurisdictional designation at this site. Mr. Lucey stated yes, none of the vernal pools in the CAMU area are jurisdictional.

Mr. Lucey stated that the U.S. EPA and USACE have a memorandum of agreement (MOA) which states that the USACE will not give up its authority of designation on any wetlands over a landfill. (This is not a written guidance.)

Mr. Lucey stated that USACE should designate any wetlands that exist on Travis AFB. Mr. Lucey said he submitted a letter to the Air Force several months ago to initiate the characterization of all the vernal pools on Travis AFB. He requested a response from the Air Force.

Mr. Brickeen stated that he was waiting for Mr. Lucey's response on the Clean Water Act before he submits a response to the letter, and the Air Force's attorneys do not agree that USACE can only make the determination of the wetlands.

Travis AFB needs to see the results of the Supreme Court ruling and the effects.

Mr. Lucey stated that he would like to have the wetlands surveyed and sampled. Mr. Brickeen stated that the Air Force has looked at which wetlands on the site might be impacted by any soil actions.

Mr. Malsberger stated that the Air Force will see if the design will impact the existing wetlands and will try to minimize the impact.

Mr. Lucey stated that there is no rationale to delay looking at the vernal pools. Mr. Brickeen stated that the rationale, is spending money looking at vernal pools that may not be impacted.

Mr. Lucey stated that the cleanup level is based on ecological or human health risk . Generally, ecological levels are more conservative than human health levels. He asked, if the Air Force does not know which is a driver, how can you avoid it. If the Air Force can show that the pool is clean, and there has been no impact, then there is no need to protect that pool. That is part of the decision used to determine the cleanup levels.

Mr. Malsberger stated that the remedial investigation looked at the source, and the historical contamination. It also looked at migration pathways. If in the remedial investigation there is a soil site with potential migration of the contaminated soil, then the downgradient areas were sampled to determine if the contamination has migrated. The remedial investigation considered the erosion into the vernal pools.

Mr. Lucey stated that he agrees; however, he would like to confirm that that has been done.

Mr. Roger Johnson asked if the U.S. EPA was involved in the remedial investigation/feasibility study (RI/FS) phase. Mr. Lucey stated yes. Mr. Johnson stated that Travis AFB has a fiduciary responsibility to the government. If this was an issue, it should have been addressed during the RI/FS phase. If issues of this type are reopened, be prepared for a multi-year budget delay.

Mr. Lucey stated that although he supports what Mr. Johnson stated 100%, this is a specific issue, protection of vernal pools. He does not know if the data quality objectives for vernal pools and wetlands were addressed in the RI/FS. In order to justify the remedial action in the ROD, additional data will be necessary. This is not beyond what anyone is asking, this is just basic, minimum data to show that it is or is not protective.

At the time of the RI/FS, it was agreed that the RI characterization was adequate to select a remedial alternative to go forward with the proposed plan, develop a ROD, obtain funding, and move forward. However, he questions if the level of characterization was adequate to make a decision. In some isolated cases, it may or may not have been.

He suggested that Travis AFB look at the RI data and determine if it was adequate; if not, then do the appropriate sampling. This sampling could be included in the existing GSAP.

Mr. Malsberger clarified the concerns by stating if CERCLA contamination is migrating, impacting, and degrading the vernal pools, then it is an RI issue. If an action is taken at a site that has wetlands, there is a need to ensure that the remedial action does not adversely impact the wetlands. If the design forces destruction of the wetlands, then the Air Force will take appropriate mitigation action, which is a remedial action issue.

Mr. Malsberger asked if Mr. Lucey was saying that the existing jurisdictional wetlands delineation that exists with the USACE is not valid anymore. Mr. Lucey stated that that is a possibility. However, the wetlands in the CAMU area are not jurisdictional and it will not change.

B. DSMOA

Mr. Brickeen stated that Mr. Salcedo will bring copies of the letter to sign at the RAB meeting.

C. Strategic Planning Meeting

The Strategic Planning meeting has been scheduled for 2 May 2001. Mr. Brickeen requested everyone to review Section 8.0, which summarizes the LTO Strategic Plan.

D. RAB Meeting

The RAB will meet 12 April 2001. Dr. “Andy” Anderson will give a presentation on ecological assessments.

E. Base Tour

There will be a tour of Travis AFB on 4 and 5 of May 2001, from 1 p.m. to 3 p.m., and 10 a.m. to 12 p.m., respectively. The primary purpose of this tour is for the new RAB members; however, everyone is invited.

F. Field Activity Reports

Mr. Brickeen distributed the field activity reports from CH2M HILL and GTI (see Attachments 10 and 11).

G. Other

- Mr. Brickeen stated Travis AFB is currently working with the Institute for Environmental Safety and Occupational Health Risk Analysis (IERA), a low-level radiological waste consultant to AFCEE for RW013.

Travis AFB anticipates that the contaminants at RW013 will be excavated with disposal of the materials at an appropriate facility. Mr. Brickeen requested the agencies identify all the stakeholders who will be involved in this process. A stakeholders’ meeting will be scheduled.

Mr. Johnson stated that this only applies to the RW013. Travis AFB proposes to follow the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) (see Attachment 12) document which is a publication developed jointly with the U.S. EPA and Department of Defense.

Mr. Brickeen stated that a revised work plan will be developed for RW013.

ACTION ITEM LIST
(Action Item Closed)

AGENDA	RESPONSIBLE	ACTION ITEM	DUE DATE	
1.	RWQCB	To review the Travis AFB dioxin data to determine what further action is necessary.	3/14/01	Completed. Item Closed

**ACTION ITEM LIST
(Action Item Opened)**

AGENDA	RESPONSIBLE	ACTION ITEM	DUE DATE	
1.	DTSC	To submit “no comment” letters on the treatment Plant Performance Monitoring Recommendations, WIOU NAAW, CAMU soil acceptance level technical memorandum, groundwater protection technical memorandum, ST032 technical memorandum.	1/11/01	Pending
2.	RWQCB	To follow up on the letter from the Air Force in response to the notice of violation.	Open	Pending the final review
3.	Air Force	To provide to the U.S. EPA the correspondence that took place between the Air Force and U.S. Fish and Wildlife concerning the mitigation report.	Open	New Item
4.	Agencies	To look at DAF20 numbers to ensure that they will be protective of groundwater at the CAMU.	Open	New Item.
5.	Agencies	To identify the stakeholders for RW013	Open	New Item.